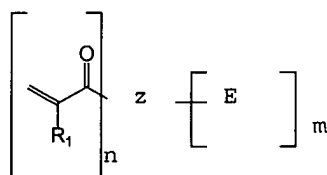


In the Claims

Complete listing of the claims:

1-23 (Canceled)

24.(currently amended) An esterified macromonomer obtainable by esterification of at least a portion of the -OH groups of an -OH group containing a macromonomer having at least one terminal double bond with at least one derivative of an inorganic or organic acid whereby pendant groups are introduced exhibiting at least one acid moiety selected from the group of consisting of -COOH, -PO₃H₂, -SO₃H, -BO₂ ~~-BO₂H~~ and salts thereof, whereby the esterified macromonomer is within the scope of the general formula:



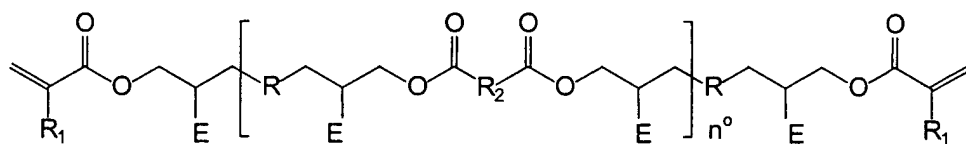
wherein Z is an organic moiety,

R₁ is hydrogen or a substituted or unsubstituted alkyl having from 1 to 12 carbon atoms, oxyalkyl having from 1 to 12 carbon atoms, alkenyl having from 2 to 12 carbon atoms, cycloalkyl having from 5 to 12 carbon atoms, aryl having from 6 to 12 carbon atoms or aralkyl having from 7 to 12 carbon atoms,

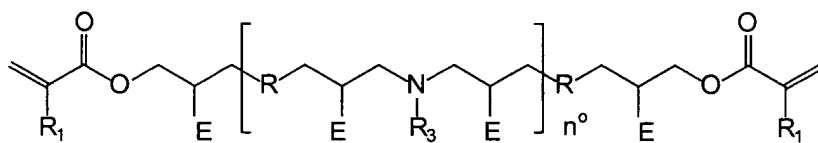
each E independently is a hydroxyl group, an organic or inorganic ester moiety and at least one E is an organic or inorganic ester moiety,

n' and m each independently is an integer from 2 to 12.

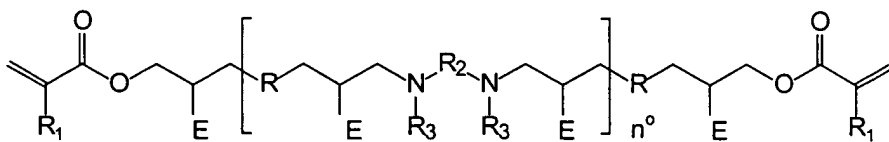
25. (currently amended) The esterified macromonomer of claim 24 wherein said esterified macromonomer is within the scope at least one of formulas **M-1** to **M-12**:



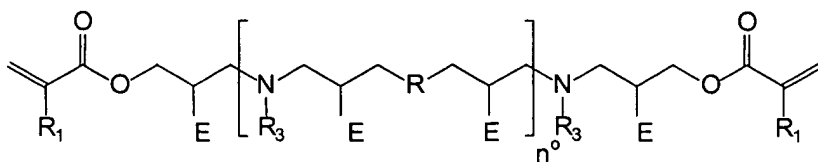
M-1



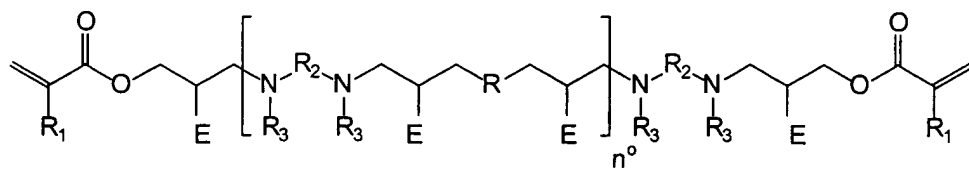
M-2



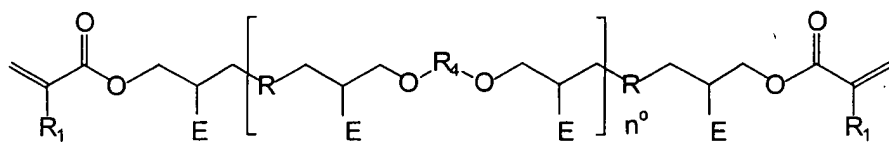
M-3



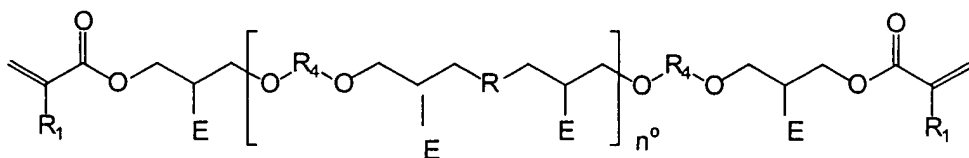
M-4



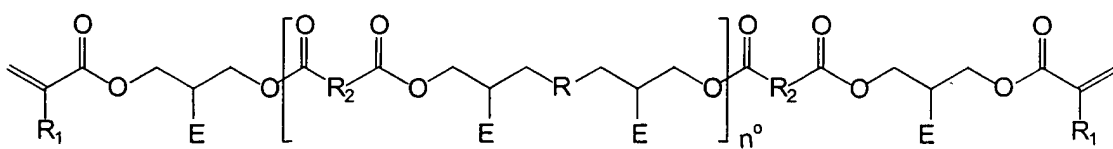
M-5



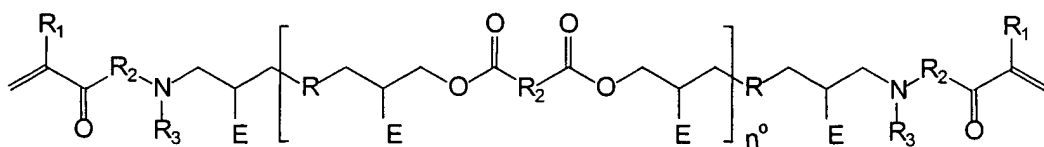
M-6



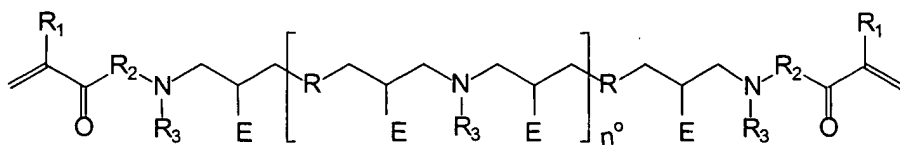
M-7



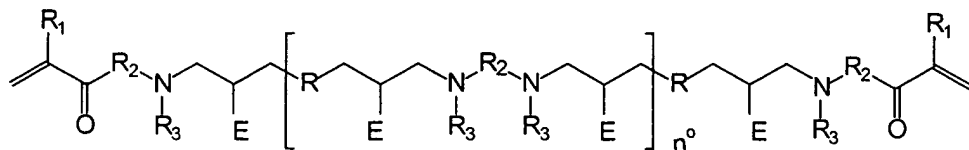
M-8



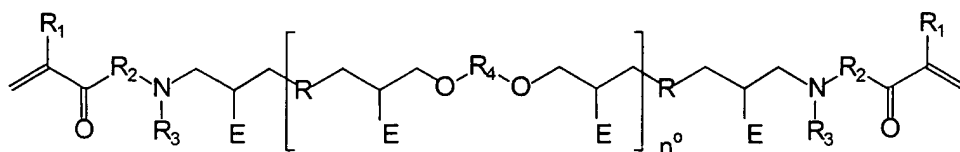
M-9



M-10



M-11



M-12

wherein

R is a diether containing moiety, or diester containing moiety or tertiary amine containing moiety,

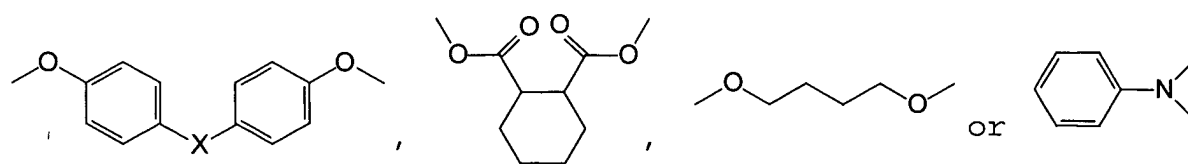
R₂ is a difunctional substituted or unsubstituted alkyl group having from 1 to 12 carbon atoms, alkenyl group having from 2 to 12 carbon atoms, cycloalkyl having from 5 to 12 carbon atoms, aryl having from 6 to 12 carbon atoms or aralkyl having from 7 to 12 carbon atoms,

R₃ is hydrogen or a substituted or unsubstituted alkyl group having from 1 to 12 carbon atoms, alkenyl group having from 2 to 12 carbon atoms, cycloalkyl having from 5 to 12 carbon atoms, aryl having from 6 to 12 carbon atoms or aralkyl having from 7 to 12 carbon atoms,

R₄ is a substituted or unsubstituted aryl having from 6 to 12 carbon atoms,

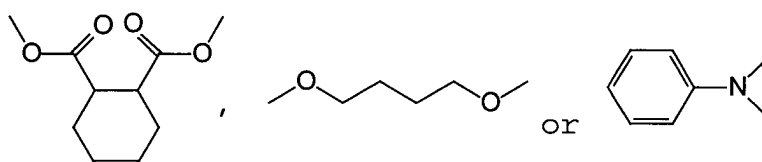
and n is an ~~integer~~ integer of at least 1.

26. (previously added) The esterified macromonomer of claim 25 wherein R is within the scope of the general formula:

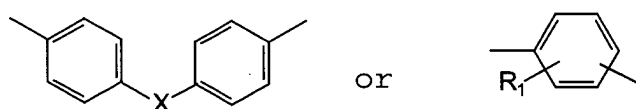


wherein X is $C(CH_3)_2$, $-CH_2-$, $-O-$, $-S-$, $-CO-$, or $-SO_2-$.

27. (previously added) The esterified macromonomer of claim 25 wherein R is



28. (previously added) The esterified macromonomer of claim 25 wherein R_4 is within the scope of at least one of the general formulas:



wherein X is $C(CH_3)_2$, $-CH_2-$, $-O-$, $-S-$, $-CO-$ or $-SO_2-$.

29. (previously added) The esterified macromonomer of claim 25 wherein at least one E comprises a carboxyl group.

30. (previously added) The esterified macromonomer of claim 24 wherein E is derived from succinic acid anhydride, maleic acid anhydride, dichloro maleic acid anhydride, dimethyl maleic acid anhydride, malonic acid anhydride, aconit acid anhydride, adipic acid anhydride, 3,3-tetramethylen glutaric acid anhydride, cyclohexen-1,2 acid anhydride, nadinic acid anhydride, phthalic acid anhydride, trimellitic acid anhydride, 2-sulfo-benzoic acid anhydride, 2-sulfo succinic acid anhydride, phthalic acid anhydride p-(O-phosphate), phthaloylchloride, succinic acid dimethyl ester, phosphorous penta chloride, phosphorous trichloride, phosphorous oxychloride, sulfuryl chloride, thionyl chloride, phosphor thionyl chloride, boric acid anhydride and boron trichloride.

31. (previously added) The epoxide macromonomer of claim 24 wherein at least one E is a salt selected from the group consisting of ammonium, sulfonium, sodium, potassium, strontium, calcium and magnesium salts.

32. (previously added) The macromonomer of claim 25 wherein said esterification is carried out in a solvent selected from the group consisting of THF, triethylenglycol bismethacrylate, diethylenglycol bismethacrylate, dioxolan bismethacrylate, vinyl-, vinylen- or vinyliden-, acrylate- or methacrylate substituted spiro-orthoester, spiroorthocarbonate or bicycloorthoester and 2,2-Bis[p-(acryloxyeth-oxy)phenyl]propane.

33. (previously added) The macromonomer of claim 25 wherein said esterification is carried out in the presence of a tertiary amine.

34. (previously added) The macromonomer of claim 25 further comprising a filler, a polymerizable monomer having at least one phosphorous ester group, a polymerization initiator and a stabilizer.

35. (previously added) The composition according to claim 34 further comprising a polymerizable monomer selected from the group consisting of mono- and polyfunctional (meth)-acrylate, a urethane di- and poly(meth) acrylate, a vinyl-, vinylen- or vinyliden-, acrylate- or methacrylate substituted spiro-orthoester, a spiroorthocarbonate or a bicycloorthoester, and said monomer comprises from about 5 to about 80 percent by weight.

36. (previously added) The composition according to claim 34 wherein said polymerization initiator is a thermal initiator, a redox-initiator or a photoinitiator.

37. (previously added) The composition according to claim 34 wherein said filler comprises an inorganic filler and/or an organic filler.

38. (previously added) The composition according to claim 37 wherein said filler is a fluoride releasing inorganic filler.

39. (previously added) The composition formed by polymerizing the composition of claim 34 to form a polymeric product having an adhesion to dentine of at least 2 MPa, a fluoride release of at least 1 $\mu\text{g F}^-$ per week and per cm^2 of the exposed surface of the composition, an opacity of at least $C_{0,7} = 40\%$ and a compressive strength of at least 200 MPa.

40. (previously added) The composition of claim 34 comprising
from about 5 to about 20 percent by weight of said esterified
macromonomer,
from about 10 to about 25 percent by weight of a di- or poly(meth)acrylate
monomer having at least one phosphorous acid ester group,

from about 20 to about 35 percent by weight of a polymerizable monomer,
from about 50 to about 65 percent by weight of a filler and polymerization
initiator and stabilizers.

41. (previously added) The composition of claim 34 comprising
from about 3 to about 15 percent by weight of said esterified
macromonomer,
from about 5 to about 25 percent by weight of di- or poly(meth)acrylate
monomer having at least one phosphorous acid ester group,
from about 7 to about 40 percent by weight of a polymerizable monomer,
from about 50 to about 85 percent by weight of a filler and polymerization
initiator and stabilizers.

42. (previously added) The composition of claim 34 comprising
from about 5 to about 25 percent by weight of said esterified
macromonomer,
from about 10 to about 30 percent by weight of di- or poly(meth)acrylate
monomer having at least one phosphorous acid ester group,
from about 20 to about 40 percent by weight of a polymerizable monomer,
from about 10 to about 50 percent by weight of a filler and polymerization
initiator and stabilizers.

43. (previously added) The composition of claim 34 comprising
from about 5 to about 25 percent by weight of said esterified
macromonomer,
from about 5 to about 30 percent by weight of di- or poly(meth)acrylate
monomer having at least one phosphorous acid ester group,
from about 10 to about 40 percent by weight of a polymerizable
monomer,
from about 30 to about 90 percent by weight of a diluent and
polymerization initiator and stabilizers.

44. (previously added) The composition of claim 34 comprising from
about 1 to about 25 percent by weight of said esterified macromonomer,
di- or poly(meth) acrylate monomer having at least one phosphous acid
ester group and a polymerizable monomer and polymerization initiator
from about 75 to about 99 percent by weight of an organic solvent and
polymerization co-initiator.

45. (previously added) The composition of claim 34 wherein the number
of said acid moieties is chosen such that a polymer obtained by

polymerizing said monomers has an adhesive strength to dentine of at least 2 MPa.--